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STRING FIGURES FROM FIJI AND WESTERN POLYNESIA

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[title page]

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By James Hornell

INTRODUCTION

SCOPE AND PURPOSE

101 The string figures described in this paper were collected in 1925
122 during an expedition to central and western Polynesia and to Fiji, carried out under the auspices and with the financial assistance of the Percy Sladen
122 Trust, whose generosity has made possible many extensive researches. To the Trustees and to the friends whose counsel and assistance in preparing for the expedition were of inestimable value, I tender grateful thanks. My obligations to Dr. A. C. Haddon and to Professor C. G. Seligman in particular are specially heavy. Neither must I omit to express my indebtedness to Ratu Pope e Seniloli, grandson of King Thakombau of Fiji, the present Vunivalu and Chieftain of Mbau; also to the Reverend John Hevea of Tongatabu; without their assistance my collection of Fijian and Tongan string figures would have been greatly reduced in number and in value.

101 The island groups visited included the Marquesas, the Society Islands,
121 Samoa, Tonga, and Fiji. Other lines of inquiry monopolized attention
126 during the time spent in the Marquesas and Society islands, but a few important figures were picked up in Tahiti. Another consideration against
121 devoting time to this subject in the Marquesas and Society islands was
126 the knowledge that Willowdean C. Handy had already made a collection
114 of these games during a long stay in this locality and would shortly publish them (10).[1] I now regret this calculated neglect, for I find that one only of the 5 figures I obtained in Tahiti is represented in Handy's collection of 25 from the Society Islands, and even in this, the method of working is so different as to entitle it to be considered a distinct game. This demonstrates alike the wonderful wealth of these Oceanic islands in this form of human ingenuity and the practical difficulty of any one individual being able to make a complete collection of the games now or recently known to the people of any particular island group.

[1] The numbers in parentheses refer to the bibliography on page 88.

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524 171 Handy records 30 games and sequences from the Marquesas and 25 from the Society Islands. With the 5 figures recorded by me for Tahiti the total for each group is 30.

My stay in Samoa was too brief to permit much time being given to this subject. None of the European residents had ever seen or heard of any string games known to the natives. When I discovered that several were common and widely known, the suggestion was made that they had been introduced by Europeans and could not be of ancient date. This view is obviously erroneous for though one of the six Samoan games is known in Europe and two others are common to Samoa, to various other Polynesian islands, and to Melanesia, the methods of working the remaining three are unknown at present outside of Samoa itself. I found that every fisher lad and lass knew one or more of the six games, as did also many of the girls attending the Convent school in Apia, although the Sisters in charge had never been aware of this fact. Considering that all the figures or games were collected within five miles of Apia it is very probable that 000 the fringe only of the subject has been touched. Inquiry in the country districts and in the neighboring islands will assuredly repay richly anyone who is willing to devote time to the subject and who has sufficient sympathy with the villagers to overcome the peculiar reluctance of most natives to acknowledge acquaintance with these games—a reluctance due probably to a fear of ridicule for indulgence in a pastime which they fancy the materialistic white man is apt to consider childish.

524 Tonga is another rich field for study. Here ten distinct figures were obtained, but five of these follow as sequences to others. A large number remain to be found and placed on record and until this has been done no comprehensive comparison of relationship can be made.

524 171 A longer sojourn and specially favorable opportunities in the Fijian archipelago resulted in the collection of 58 figures. As 28 of these represent sequences of a primary figure, there remains a net total of 30 separate and distinct games, the same number as for the Marquesas and for the Society Islands. These numbers have been approached only by Jenness (12) who recorded 48 figures from Goodenough Island in the D'Entrecasteaux Archipelago.

128 In describing these Fijian figures I do not propose to adopt the classification devised by Handy (10), who uses the terms: stationary figures, progressing figures, sliding figures, figures made by two persons, catches and trick figures, and three dimensioned figures. My chief reason for not following this grouping is that many of the figures partake of the characters of two of the classes mentioned, thus rendering it difficult to locate them satis-

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128 factorily and leading to an arbitrary assignment. The figures here described are set down therefore approximately in the order of their complexity when completed, those without known sequent figures preceding those that form a series of figures, whether worked by a single player or by two players. The two divisions thus formed are about equal in constituent numbers.

524 171 Most Fijian string figures are named after some familiar object which they are supposed to represent. There is thus a large animal series including the owl, the crane, the caterpillar, the butterfly, the flying-fox, the fish (*Periophthalmus*), the sting-ray, the turtle, the land-crab, and the snake. The molluscs are represented by a figure vividly suggestive of the opening and shutting of the valves of the giant clam (*Tridacna*). Other figures represent tavola and ivi trees, and the leaves of the screw-pine (*Pandanus*). In a few figures the Fijians see a resemblance to the sun in one form or another, his rays shooting upwards from the horizon at daybreak or in full symmetry when high in the heavens. One figure is named "the star," having four branches which represent rays.

Many familiar objects of daily life and various household articles find representation, for example, a house, a canoe, a fishing net, a mat, a roll of sennit, a basket, a wicker food-platter, a breadfruit cut open and whale's teeth (formerly used as a valuable form of present).

Unlike the games of the Society Islands, those of Fiji have but few geographical allusions; the references are limited to Koro and Wakaia islands and to a point and an island (Undu Point and Koro Island) situated over against one another, separated still further as the tide rises.

Unlike many games in New Zealand, in the Marquesas, and in the Society Islands, no Fijian game that I know has any mythological significance. Neither does any sign survive to indicate that any of these games ever had a magical value corresponding to those employed in Papua in connection with the planting of yams, as recorded by Landtman (13) and by Jenness (12). Possibly this absence is attributable to the blight of missionary influence upon old customs and games however innocuous or innocent; any such game that existed may have been suppressed by being banned or by having its name changed or boudlerized. (See Handy, 10, pp. 7 and 8.) *Tevoro* is possibly one of these, as the name is merely the Fijian rendering of the English word "devil." The agent in such changes or suppressions has usually been the native catechist or pastor, a man too frequently fanatical in his consuming desire to purge his flock of everything that could possibly remind them of their former god and heroes.

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524 171 533 A large number of Fijian string games were originally worked out to the accompaniment of a chant. Many of these chants are almost certainly of great antiquity for the meaning of several of them is not now understood fully by those who repeat the words.

524 171 Whatever the custom in former times, string games in Fiji are played nowadays solely for pastime; even this custom is dying out before the spread of hymn singing, the attendance at football matches, and the general and rapid deterioration of the native culture.

Fijian string games are termed collectively *vei thiu* in those localities where the aristocratic Mbauan dialect is spoken; in Vanua Levu they are usually called *vei sanga*.

ETHNOLOGICAL SIGNIFICANCE

524 171 128 To exhibit the geographical distribution of the figures described from Fiji and Tonga, Table 1 and Table 2 have been prepared.

In making these tables I have utilized, with one exception, only those figures the constructive movements of which are sufficiently similar to permit no doubt of common origin. Figures like those described by Roth (16), in which the final design alone is known, and those in which the movements leading up to similar concluding designs are fundamentally different, have been rigorously excluded. The single exception is the geographic figures representing two islands vis-à-vis, namely, the Fijian figure "Koro and Wakaia," and the Society Islands figure "Tahiti and Moorea." These I include as equivalent and common in origin because of the similarity in the underlying idea.

524 171 Table 1 amply demonstrates the predominance of Melanesian influence in Fiji. Of the 30 solitary or independent figures and series of figures which I have recorded from Fiji, the large total of 12 has been recorded also from New Caledonia, Loyalty Islands, Torres Strait, D'Entrecasteaux Archipelago, and the Fly River district of New Guinea.

Relationship with Tonga comes next in importance, 7 figures being common to Fiji and Tonga. Three of these are not found in New Caledonia and New Guinea areas, suggesting that they are not of Melanesian origin. Nine are common to Fiji and to the Society-Marquesas islands taken as one ethnic and geographic unit, 6 of which are found also in Tonga. It therefore may be concluded that at least most of these figures, as well as those with range restricted to the Society Islands, the Marquesas, Tonga, and Samoa, belong to Polynesian culture.

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TABLE 1. DISTRIBUTION OF FIJIAN STRING FIGURES

Fiji	New Caledonia Loyalty	New Guinea Torres Straits	New Zealand	Tonga	Samoa	Gilbert, Ellice, Tokelau	Society	Marquesas	Carolines	Other Regions
balawa A			matamata-kare							world wide
balawa B		baur								java India (?)
ika		so uso								
lulu		sirar							grating coconut	
kalokalo		sisiafwatu								Africa
bamuve	madin (N. C.) inyi (Lifu)	kultur manu lansi-si				amen-nibek (Nauru)			one chief	
velovelo	tim (Lifu)	gul ti-meta					apoo mahai ahaana			
wannga-ni-Viti	nameless			ipu-sioata						Africa
sanga ndondoli		devane tup								
tambua			moti	pilita-eiku			moo			
bokola								tataiahue		
tevoro	bracelets					teuila kalisi			diamonds	
imbi-nunga	watasith									
Koro and Wakaia							Tahiti and Moorea			
imbi series	nameless		tara-kaikape	loukabe			firi rau anani	koukape	ten men betel leaf-sheath	
lalakai and mata-ni-singa	sugar-cane Parts I and II									
suviauto mawa				matamata kupenga Part I	moenga	tapa tafa	ioio	tohiau Part I	turtle	Philippines
kapa				matamata kupenga Part II		tapa tafa Part II		tohiau Part II	ten times	Philippines

[a] Includes D'Entrecasteaux Archipelago.

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524 171 The comparatively large number of figures common to Tonga and Fiji indicate long-standing cultural connection between these island groups, a conclusion justified by all other evidence. It is likely that the total number of string figures common to the two will be considerably increased when those of Tonga become better known. The same conclusion should hold good of the relationship of Samoan figures with those of Fiji.

That 6 of the Fijian games (9 figures) are found also in the Society and Marquesas islands is a fact of importance, more particularly as 2 of these 6—the Fijian *imbi* and *kapa* series—are intricate and serial and require the intervention of a second player. The most complex of these, the Fijian *imbi*, together with its two principal sequences, is known also in

TABLE 2. DISTRIBUTION OF TONGAN STRING FIGURES

Tonga	Fiji	Samoa	New Caledonia	New Zealand	Society	Marquesas	Gilbert Ellice	Carolines
pilitaeiku	tambua			moti	moo			
ipu sioata	wangga-ni-Viti		nameless					
matamata kupenga	suviauto mawa	moenga			ioio	tohiau	tafa tapa	turtle
loukabe	imbi		nameless	tara-kaikape	firi rau anani	koukape		betel leaf-sheath ten men

New Zealand, in the Carolines, and in New Caledonia. This particular game, known throughout the greater part of Polynesia, is most probably of Polynesian origin, its presence in Fiji and New Caledonia (or rather in the Loyalty Islands, where Compton found it) being due to contact with Polynesian culture.

524 171 192 The names of this game as used in Polynesia are also suggestive of a common Polynesian origin. It is known as *loukabe* in Tonga, *tara kaikape* and *tonga raurepe* in New Zealand, *koukape* in the Marquesas, and *firi rau anani* in the Society Islands. The word *kape* (*kabe*) is Polynesian for *Alocasia macrorrhiza*, a magnificent aroid bearing gigantic leaves, conspicuously ribbed on the underside with a network of peculiarly prominent thickened veins. The term *lau* (*rau*) likewise signifies "leaf." The Marquesan name, *koukape*, is suspiciously like the Tongan *loukabe* and the Maori *raurepe* and *kaikape*, but Handy (10, p. 8) states that *koukape* means the intestinal mesentery, which had an old-time magical significance. The relationship of these terms might usefully be investigated by the philologist.

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524 171 It is also noteworthy that the *inubi* is the most widely spread of any string game, either single or serial, in Oceania. In Samoa and in the Gilbert, Tokelau, and Ellice islands, where it has not been recorded, I feel sure that it will eventually be found.

The relationships of the Tongan figures are wholly Polynesian if Fiji be excluded. Only one form is common to Tonga and the New Caledonia area, whereas 2 of the total 10 are found in New Zealand and 3 in the Society and Marquesas islands. Of these 3, one appears also in Samoa and in the Ellice and Tokelau islands.

The Samoan figures are not sufficiently numerous to permit useful or valid conclusions to be drawn, except that 2 of them betoken close relationship with the islands to the westward.

121 As pointed out by Handy (10a) a study of string figures has thrown a strong light on the relationships of primitive peoples, but much more information from many island groups is necessary before the full value of the geographical study of string games can be utilized adequately in the solution of the ethnological problems of Melanesia and Polynesia. The present collection has perhaps its chief value in breaking new ground in certain island groups. What has been done in Samoa and in Tonga is not a tithe of what may be accomplished there if an investigator with tact and a knowledge of the language devotes adequate time to the study. Fiji is so prolific a field that I am satisfied that numerous games remain unrecorded. Immediate attention to this subject is, however, necessary, for the people are rapidly forgetting the games and in a few years many will have become irretrievably lost. I would direct special attention to the collection of the chants associated with many of the games. Wherever possible these have been recorded in this collection.

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TERMINOLOGY

128 In the description of the movements required to evolve the various figures, I have adopted the technical terms devised by Rivers and Haddon (15), and used also by Handy (10), who describes the terminology in the following convenient form:

> The back of the hand and fingers is referred to as the dorsal side; the palm, as the palmar side; so that a string or a loop is said to lie on the dorsal or the palmar side of the hand or a finger, is picked up on the dorsal or the palmar side of a digit. The little finger side of the hand is called the ulnar side; the thumb side, the radial side; so that strings are said to be ulnar or radial according as they lie on the side of a finger towards the little finger or towards the thumb. Similarly, the direction of the rotation of a hand or a finger is designated as in the ulnar or in the radial direction, according as it describes an arc or a circle starting towards the little finger side of the hand or towards the thumb side.

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128 Likewise the direction of the twisting of a loop is ulnar or radial. When there is more than one loop on a digit, that lowest, that at the base, is spoken of as the proximal loop; the highest, that near the tip, as the distal loop. There may be a proximal ulnar string on each finger, as well as proximal radial string; a distal ulnar string and a distal radial string. Furthermore, the direction of entering a loop or of picking up a string may be from the proximal, underneath, or from the distal, above; or, as I sometimes express it, the move may be on the proximal or the distal side of the loop or the string.

I have followed Rivers and Haddon (15) in the use of the convenient terms "Position 1" and "Opening A" for moves which commonly begin figures.

Position 1: Place the string on each hand so that it passes along the ulnar side of the hand, the dorsal side of the little finger, between the little and ring-finger, across the palm, between the index finger and the thumb, around the dorsal side of the thumb, along the radial side of the hand across to the opposite hand.

Opening A: Place string on hands in Position 1. With the right index finger, from the proximal direction, pick up the left palmar string and return to position. With the left index finger, from the proximal direction, pick up the right palmar string, inside the right index-finger loop, and return to position.

I have also adopted the term "navahoing," introduced by Haddon (8), who describes it as follows:

When there are two loops on a digit, a distal one and a proximal one, you are often required to lift the proximal loop over the distal one, and over the tip of the digit on to its palmar aspect. This movement I refer to as *"Navahoing"* on account of its frequent occurrence among the string figures of the Navaho Indians of New Mexico, U. S. A.

Simple everyday terms have been employed, however, in descriptions which involve no possible misunderstanding as to the nature of the movement to be carried out.

[pp. 11-60 not processed]

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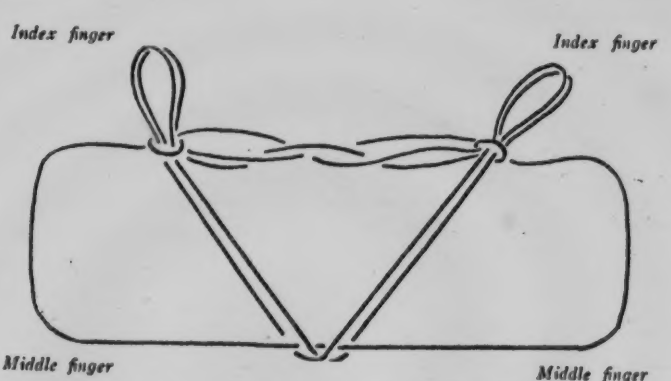
STRING FIGURES FROM TONGA

PILITALEIKU

1. Opening A.

2. Insert the index fingers from the distal side into the little finger loops, pick up on their dorsal sides the little finger ulnar strings and return to the original position.

3. Join the tips of the index finger and thumb of each hand and slip the thumb loops on to the index over these joined tips. Return to position.



[115] FIGURE 51.—String figure, *pilitaleiku* (*pilitaeiku*) (tailless lizard), learned from Mrs. Jiojiana Lupe, Tongatabu, Tonga.

4. Rotate the index fingers in the ulnar direction, catching up in their course on their palmar sides, the little finger radials and continue the full rotation to position.

5. Place the tip of each thumb against the tip of the adjoining index and transfer the index loops to the thumbs by slipping them over the conjoined tips.

6. Rotate the index fingers in the ulnar direction, pick up on their palmar sides the little finger ulnar strings; continue the rotation and thrust the index fingers into the thumb loops from the distal side, reverse the rotation to the radial direction and pick up on their dorsal sides the double thumb ulnar strings, continuing the rotation back to position. Release the thumb loops.

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524 7. Insert the thumbs into the little finger loop from the proximal direction, keeping close to the little fingers. Join the tips of the index finger and thumb of each hand, and keeping them joined, turn the index fingers down into the little finger loops, withdrawing the thumbs.

8. Turn the palms upwards, and insert the thumbs into the two distal index loops. Release the little finger loops and spread the index fingers and thumbs, drawing the strings taut. (There are now a double loop on each thumb and a treble loop on each index, the strings of the third loop crossing in zig-zags from back to front in the form of three V's as shown in figure 52.)

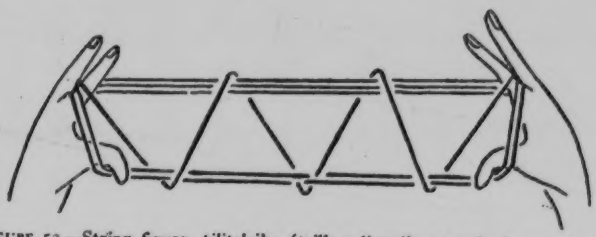

FIGURE 52.—String figure, *pilitalciku* (tailless lizard), at end of movement No. 8.

9. From below, hook the middle fingers upon the side strings of the central V, pull out sideways and downwards, release the index finger loops and pull taut.

10. Release the thumbs, insert the index fingers in the middle finger loops and extend, when the "tailless lizard" appears. It ought by right to be called the "stump-tailed lizard," as two loops appear, one being the head and the other the remains of a tail. The lizard represented is, I believe, the house gecko, which is very partial to self-mutilation, when in danger of capture.

524 171 The working of this game is identical with the Maori *moti* (*mouti*) up to the end of movement 9 (1, vol. III, p. 91), where the Tongan one ends. The Fijian *tambua* (fig. 13) and the Society Islands *moo* (10, p. 66) are closely related.

524

TAFUE-A-FANENE (FUE-A-FANENE)

1. Extend the string upon the index fingers.

2. Going distal, take the ulnar string at the middle point between the lips.

3. Passing the right hand mouth string on the distal side, catch up from the proximal side the left hand mouth string upon the right index

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524 and return, and similarly catch up the right hand string on the back of the left index finger, passing distal to the left hand mouth string; release the mouth strings.

4. Pass the thumbs over the proximal index radial string, and take up on their backs the proximal index ulnar strings and return.

5. Repeat with the distal index strings.

6. Bending the middle fingers down take up on their backs the proximal index radial strings, passing distal to the distal index radial strings to do so.

7. Each middle finger is now within a small triangular space. With the lips lift off the string passing across the palmar side of this finger,

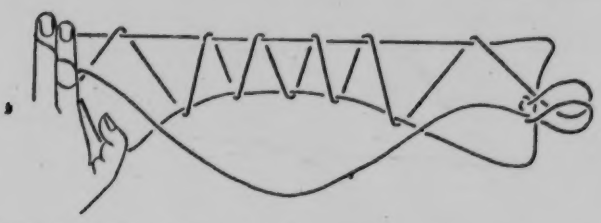

FIGURE 53.—String figure, *tafue-a-Fanene* or *fue-a-Fanene* (Fanene's skipping rope), learned from Mrs. Jiojiana Lupe, Tongatabu, Tonga.

releasing the string passing around its dorsal side, and slip the former string over the tip of the same finger. Repeat three or four times on each hand.

8. Place the thumb from above upon the palmar string of this twisted loop, press down, release the strings on the thumbs and extend.

It will be found that one of the thumb strings hangs loose and can be thrown backwards and forwards over the stretched figure—the skipping rope.

MAILE-LAU-MOMO

The procedure for *maile-lau-momo* is the same as *tafue* (fig. 53) except that; (1) in No. 3 the left hand goes proximal instead of distal in taking up the right hand string running from the mouth and that (2) it is preferable to make only two or at most three twists in the middle finger loop (No. 7). When extended, the figure shows a series of double zig-

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524 171 524 When extended, the figure shows a series of double zigzags between two parallel lines—a figure akin to the Fijian *sanga ndondoli*. Another continuation forms *matapa-a-Tenioko* (Tenioko's gate, fig. 55).

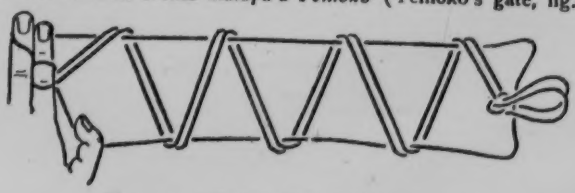

FIGURE 54.—String figure, *maile-lau-momo*.

MATAPA-A-TENIOKO

1. Make *tafue-a-Fanene* (fig. 53), hanging the loose string pendent on the far side.

2. With the thumbs which press down the palmar strings of the twisted loop, catch up upon their palmar faces the loose or skipping string, and hold it down together with the palmar string of the twisted middle finger loop. Extend the figure, turning the palms of the hands outwards.

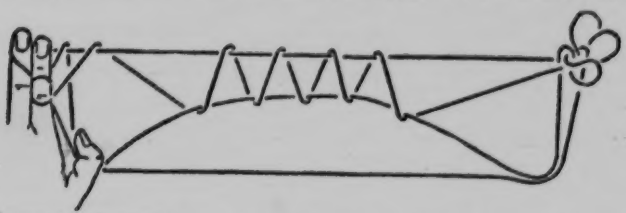

FIGURE 55.—String figure, *matapa-a-Tenioko* (Tenioko's gateway or the Tenioko gate, if, as is possible, Tenioko is a place name), learned from Mrs. Jiojiana Lupe, Tongatabu, Tonga.

The result is an archway or bridge-like figure. If desired, the number of loops on the archway may be increased by giving more twists to the middle finger loops when making the *tafue-a-Fanene* figure.

IPU SIOATA

FIRST PART

1. Take a double turn with a closed loop round the big toe, so that one string passes across the upper surface of the toe.

2. Thrust each hand from the proximal side through the upper portion of the free loop, bend each outwards over its respective side-cord,

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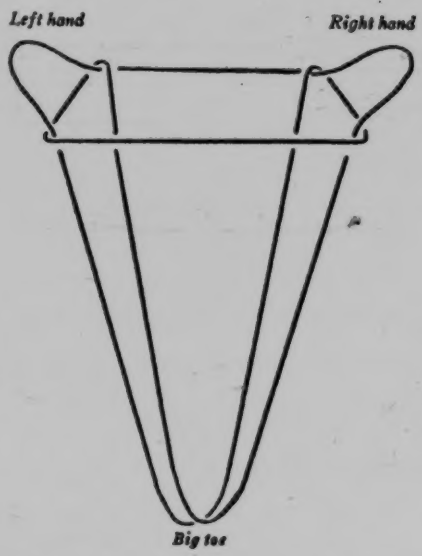
524 then, turning the hands first downwards and then towards one another, pass them again through the loop and bring them up. A loop now passes twice across the back of each wrist and once across the inner side.

3. Bend the hands down and catch with the index finger and thumb of each hand the loop crossing the upper surface of the big toe at two points. Pull up this loop as far as possible, running the cord through the fingers as the hands draw apart, and allowing the wrist loops to slip off, over the strings that are being pulled up with the fingers.



[115] FIGURE 56.—String figure, *ipu sioata* (drinking glass) learned from a native girl at Neiafu, Vavau Island.

SECOND PART

A continuation of this figure was carried out by the same girl, similar to the Fijian *mawa* (fig. 38), which is also begun by some players with this *ipu sioata* opening. The second part of *matamata kupenga* (fig. 58) is likewise sometimes worked from the resultant figure as this is similar in its meshing, though the finger holds are different.

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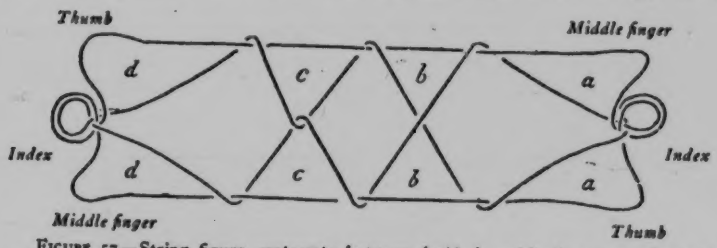
MATAMATA KUPENGA

First Part

1. Opening A.
2. Release the little finger loops.
3. Transfer the thumb loops to the index fingers by passing the latter into the loops proximal, and withdrawing the thumbs.
4. Pass the thumb of right hand over the proximal index radial string and under the proximal index ulnar, and return with it; the same with the left thumb.
5. Repeat the operation with the distal index strings.
6. Pass the middle fingers over the distal and under the proximal index radials and return to position with the index radials upon their backs.
7. Navaho the thumbs.
8. Turn the left hand inwards until the palm is upwards. The figure will appear as shown in figure 57.



[115]

FIGURE 57.—String figure, *matamata kupenga* (spider's web), first part. Learned from a woman in Neiafu, Vavau Island.

Second Part

The game is continued by a second player who passes from above his little fingers into the triangular spaces *a*, *a*, immediately adjacent to the middle finger and thumb of the first player's right hand, and his thumbs into the triangular marginal spaces *b*, *b*, also from above, and then raises them from below through the adjoining triangular spaces *c*, *c*; afterwards the little fingers which have already passed from above through *a*, *a*, are brought up from below through spaces *d*, *d*, which are those through which the left thumb and middle finger of first player pass respectively. The second player then lifts the figure from off his companion's fingers and extends it on his own little fingers and thumbs. This gives the "spider's web" figure as shown in figure 58.

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524 The game is continued by the first player (A) and second player (B) competing in speed in reforming the figure as follows, B first gives corner spaces *a'*, *a'* to A who inserts his thumbs into them. Then A puts his index fingers through spaces *a'*, *a'*, from below, and into central space *b* from above. B does similarly with spaces *a*, *a* and down through

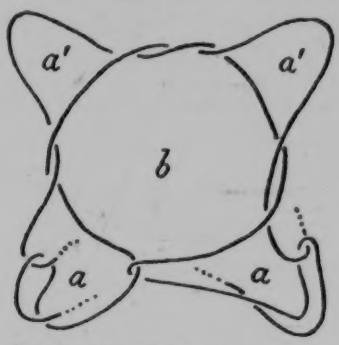

FIGURE 58.—String figure, *matamata kupenga*; second part. Half of the figure only is shown; the other half is duplicate and is superposed on this.

b. The two then extend the figure between them, pulling out the thumbs which are kept in the corner spaces while the figure is reforming. Then they replace the index fingers by the thumbs and repeat *ad infinitum* till [171] one player makes a mistake. This figure is identical with the Fijian *kapa*.

LOUKABE

1. Opening A.

2. Release the thumb loops.

3. Going distal pick up the little finger ulnar with the lips and draw out.

4. Pass the right index distal to the right mouth string and proximal to the left one; catch the latter upon the dorsal side of its tip and return; similarly going proximal take the right mouth string on the back of the left index. Extend, releasing the mouth loop.

5. Pass the thumbs proximal to the index loops and thrust them into the little finger loops from the proximal side; return with the little finger radials on their backs. Pass the thumbs next into the distal index loops from below and return with the distal index radials on the backs of the thumbs.

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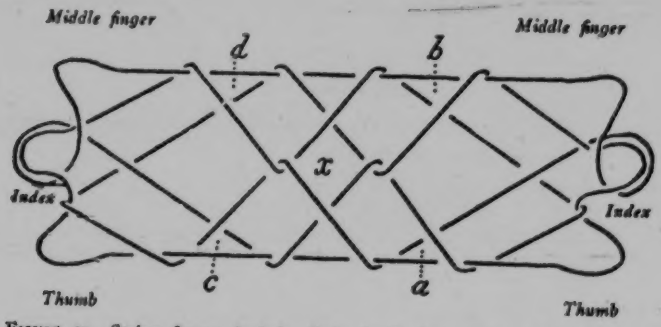
S24 6. Navaho the thumbs and release the distal index loops by slipping them over the index tips.

7. Transfer the thumb loops to the index fingers, passing the latter from below into the thumb loops.

8. Repeat movement 5.



[115] FIGURE 59.—String figure, *loukabe* (kabe leaf), learned from a Tongan girl at Neiafou, Vavau Island.

9. Pass the middle fingers distal to the two index ulnar strings, into the index loops, hook up upon their tip, the proximal index radial strings and return.

10. Navaho the thumbs.

11. Release the little finger loops and extend, turning the palms downwards into a horizontal position.

S24 171 The *loukabe* figure is identical both in working and result with the Caroline Islands "ten men," and also with the Maori *tonga raurepe* save in the earlier moves where there is notable difference. There seemed a probability that the name *raurepe* was a variant of *laukape*, especially as S24 192 171 it is prefixed by the adjective "*tonga*." But Andersen (1, vol. 4, p. 247) says that *tonga raurepe* is the name of an ancester of the Maori tribe called Ngati-Porou, and is restricted thereto. Among the Whanganui tribes it is called *tara kai kape*, the *kape* again suggestive of close relationship with Tonga.

This figure and its sequences are also similar to the Marquesan *koukape* and the Society Islands *firi rau anani*. The Marquesan name of *koukape* is suspiciously like the Tongan *loukabe*, but Handy (10, p. 8) states that *koukape* signifies the intestinal mesentery, and also the name of a fish given as medicine to a woman after childbirth. She adds that it had an old-time magical significance. The use of *kape* or *kabe* in the

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names of this figure in the Marquesas, Tonga, and New Zealand can scarcely be a coincidence without meaning. Possibly the original form of the word *koukape* has undergone some mutilation or corruption, leading thereby to a misunderstanding of its significance.

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The term *kabe* or *kape* is applied in Tonga to *Alocasia macrorrhiza*, an aroid of extremely stout growth, having huge leaves prominently veined. The tubers of *kabe* are used in the same way as those of taro (*talo*).

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TOLOA

1. Make the *laukabe* figure.

2. A second player inserts from above the thumb and index of his left hand into and through the marginal triangles *a* and *b* respectively, and similarly his right thumb and index into *c* and *d*, bringing all four digits upwards through the central diamond space *x*. Upon extension the figure *toloa* is formed.

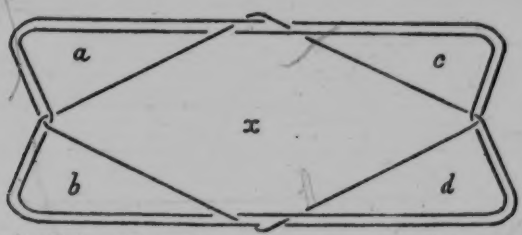

FIGURE 60.—String figure, *toloa* (the Southern Cross), learned from Mrs. Jiojiana Lupe, of Tongatabu, Tonga.

From this another astronomical figure, *humu*, the "coal hole," can be formed.

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In Tongan *toloa* is a wild duck and Collocott (5a) states that "Tongan imagination pictures the Southern Cross as a duck whose head is gamma and tail alpha, the wings being beta and delta"—the dark patch of clear sky near the left end of the cross is *humu*, a kind of fish.

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HUMU

The *humu* figure is a continuation of *toloa*. The first player passes his right finger and thumb from above through the corner triangles at one end, *a* and *b* respectively, and those of his left hand similarly through triangles *c* and *d*, at the other end, thereafter turning all four upwards and

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S24 [171] passing them from below through the center diamond *x*. The result is a figure identical with the Maori *uwhine* and closely akin to the Samoan *paa*.

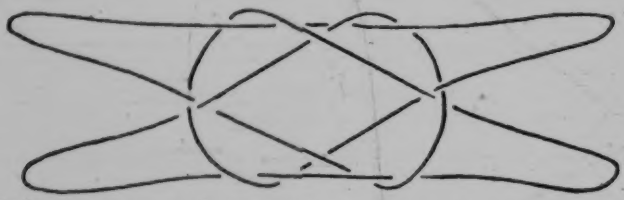

FIGURE 61.—String figure, *humu* (the Coal-hole, under the Southern Cross), learned from Mrs. Jiojiana Lupe, of Tongatabu, Tonga.

S24 171 This series of *laukabe, toloa* and *humu* is an exact parallel of the Fijian series of *imbi, drau-ni-ivi* and *tavola;* There are certain minor differences between the working of *imbi* and *laukabe*, but there is no room for doubt that they have had a common origin. (See also the Fijian *vasua*, p. 43.)

[pp. 71-87 not processed]

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Samoa OU8
Marquesas OX6
Maori OZ4

[For information on comparative distributions of string figures in Polynesia and Fiji, see 104: Hornell, OU9 Tonga File, Category 116, pp. 3-10.]

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